

## ABSTRACT

The present invention relates to a process for rapid solution synthesis of a peptide, the process comprising repetitive cycles of steps (a)-(d):

- 5 (a) a coupling step, using an excess of an activated carboxylic component to acylate an amino component,
- (b) a quenching step in which a scavenger is used to remove residual activated carboxylic functions, wherein the scavenger may also be used for deprotection of the growing peptide,
- (c) one or more aqueous extractions and
- 10 optionally, (d) a separate deprotection step, followed by one or more aqueous extractions, characterised in that the process comprises at least one step (b), referred to as step (b'), in which an amine or a thiol comprising a free anion or a latent anion is used as a scavenger of residual activated carboxylic functions.

During the process of this invention the growing peptide need not be isolated until the final  
15 peptide sequence has been obtained.

This highly efficient process is useful for the production of oligo- and polypeptides of high purity.